## CW $\equiv$ Enerjí

## Half-Cut



High Conversion Efficiency
High panel efficiency to guarantee high power output


Self-Cleaning And Anti-Reflection Glass
Coating glass for self-cleaning reduces surface dust


Outstanding Low Irradiation Glass
Outstanding panel performance even in weak light conditions


Excellent Durability
Wind load up to 2400 Pa, Snow load up to 5400 Pa

$0 \sim+5 W p$ Positive Power Tolerance


Easy Installation


Twice EVA Laminated Double Glass
30 Years Performance Warranty



CWT450-108TNB10 450 Wp CWT445-108TNB10 445 Wp CWT440-108TNB10 440 Wp CWT435-108TNB10 435 Wp


PV CYCLE C


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## BIFACILLTOPCON MONOCRYSTALINE O 108TNB10 <br> Rlit-

ELECTRICAL CHARACTERISTICS

| Model Type | $\begin{aligned} & \text { CWT435 } \\ & \text { 108TNB10 } \end{aligned}$ | $\begin{gathered} \text { CWT440 } \\ \text { 108TNB10 } \end{gathered}$ | $\begin{gathered} \text { CWT445 } \\ \text { 108TNB10 } \end{gathered}$ | $\begin{aligned} & \text { CWT450 } \\ & \text { 108TNB10 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Peak Power (Pmax) | 435 Wp | 440 Wp | 445 Wp | 450 Wp |
| Module Efficiency | 22.28 | 22.53 | 22.79 | 23.04 |
| Maximum Power Voltage (Vmp) | 32.54 | 32.74 | 32.94 | 33.14 |
| Maximum Power Current (Imp) | 13.37 | 13.44 | 13.51 | 13.58 |
| Open Circuit Voltage (Voc) | 38.51 | 38.71 | 38.91 | 39.11 |
| Short Circuit Current (lsc) | 14.17 | 14.24 | 14.31 | 14.38 |
| Power Tolerance | 0~+5W |  |  |  |
| Maximum System Voltage | 1500 V DC |  |  |  |
| Operating Temperature | $-40 \sim+85^{\circ} \mathrm{C}$ |  |  |  |
| Protection Class | Class II |  |  |  |
| Maximum Series Fuse Rating | 25A |  |  |  |

MECHANICAL SPECIFICATIONS

| Cell Dimensions(mm) | $182 \times 91$ |
| :--- | :---: |
| Cells per Module(pcs) | $108(6 \times 18)$ |
| Weight(kg) | 24.0 |
| Panel Dimensions(mm) | $1722 \times 1134 \times 30$ |
| Max. Wind/Snow Load(Pa) | $2400 / 5400$ |
| Junction Box | IP68 |
| Junction Box Cable Length(mm) | $350-1600$ |
| Glass Thickness (mm) | $2.0 / 2.0$ |

PHYSICAL CHARACTERISTICS


TEMPERATURE CHARACTERISTICS
(445W Front Power Referenced)

| Rear Side Power Gain | $5 \%$ | $10 \%$ | $15 \%$ | $20 \%$ | $25 \%$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Peak Power (Pmax) | 467.25 | 489.50 | 511.75 | 534.00 | 556.25 |
| Short Circuit Current (Isc) | 15.03 | 15.75 | 16.46 | 17.18 | 17.89 |
| Open Circuit Voltage (Voc) | 38.71 | 38.91 | 38.91 | 38.91 | 38.91 |
| Maximum Power Current (Imp) | 14.19 | 14.86 | 15.54 | 16.21 | 16.89 |
| Maximum Power Voltage (Vmp) | 32.94 | 32.94 | 32.94 | 32.94 | 32.94 |

## TEMPERATURE CHARACTERISTICS

| Temp. Coeff. of (lsc) | $0.040 \% /{ }^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Temp. Coeff. of (Voc) | $-0.260 \% /{ }^{\circ} \mathrm{C}$ |
| Temp. Coeff. of (Pmax) | $-0.30 \% /{ }^{\circ} \mathrm{C}$ |

## PACKING CONFIGURATION

| Container | 40' HC |
| :--- | :---: |
| Pieces per Pallet | 35 |
| Pieces Per Container | 910 |
| Pallet Per Container | 26 |

ELECTRICAL CHARACTERISTICS


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[^0]:    * The specifications are obtained under the standard test conditions: $1000 \mathrm{~W} / \mathrm{m} 2$ solar irradiance, 1.5 Air Mass and cell temperature of $25^{\circ} \mathrm{C}$. Measurement uncertainty for all panels is $3 \%$, The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual"
    * For roof, facades and installations on similar surfaces, solar panels should be mounted over a fire-resistant covering suitable for this application, with adequate ventilation between the back of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not fire-resistant materials such as plastic layer, transparent plastic, PVC or similar materials without any fire-protection layer. Usage and installation $n$
    * CW Enerji reserves the right to change the specification of products without prior notice.

